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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,121	11/14/2001	Ronald Hilton	AMDH-08156US0 DEL	4641
21603	7590	04/13/2006	EXAMINER	
DAVID E. LOVEJOY, REG. NO. 22,748			SILVER, DAVID	
102 REED RANCH ROAD			ART UNIT	
TIBURON, CA 94920-2025			PAPER NUMBER	

2128

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/992,121	Applicant(s) HILTON, RONALD	
	Examiner David Silver	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/18/06</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-7 were originally presented for examination.
2. Claims 1-7 were rejected.
3. Claims 1-7 are currently pending in Instant Application.
4. Instant Application is not currently in condition for allowance.

Information Disclosure Statement

5. The information disclosure statement(s) (IDS) submitted on 1/18/06 is/are fully in compliance with the provisions of 37 CFR 1.97, with the following exception

Timmins, L. "Techniques for Translating Object Code into a Reduced Microprocessor Architecture"
is illegible and therefore not considered by the Examiner.

Response to Arguments

6. Applicant's arguments with respect to claim 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Response: Drawings

7. The drawings were received on 1/18/06. These drawings are acceptable.

Response: 35 USC 112 Rejections

8. The 35 USC 112 rejection of claim 4 has been withdrawn.

Claim Interpretations

9. The mere ability or enablement to be used for the performance of a function does not necessitate the performance of such function or such use. Therefore, if an art does not explicitly prohibit the performance of a function it inherently is enabled to perform the function and its use.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 1-3, 5, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Walters (**US 5,768,593**

- Submitted by Applicant in supplemental IDS form. Fees Paid.)).

As per claim 1, Walters discloses a computer-implemented method for dynamic emulation of legacy instructions comprising:

accessing said legacy instructions in legacy blocks (**Fig 5, col: 1 line: 26-35 It is inherent that to translate instruction A into B, the instruction must be read and therefore accessed.)),**

for each particular legacy instruction in a particular legacy block (**col: 3 line: 54 to col: 4 line: 3; a legacy block can consist of a single legacy instruction),**

translating the particular legacy instruction into one or more particular translated instructions for emulating the particular legacy instruction (**col: 3 line: 35-44),**

organizing the particular translated instructions into one or more particular translated blocks (**col: 5 line: 29-30, col: 2 line: 28-31),**

linking the particular translated blocks into a particular linked group corresponding to said particular legacy block (**Fig 5 step 230, col: 4 line: 35-44; the map links the translated blocks to their corresponding legacy blocks; linked group ... hash table).**

As per claim 2, Walters discloses the method of claim 1 wherein said linking step uses a link in each particular translated block to point to a location of the next particular translated block of the particular linked group (**col: 3 line: 54-58).**

As per claim 3, Walters discloses the method of claim 1 wherein

said particular translated instructions are stored in a cache (**col: 3 line: 35-44 , col: 6 line: 3-10; Cache is not explicitly defined in the specification as such it takes its ordinary**

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meaning in the art: A memory area where frequently accessed data can be stored for rapid access. Source: <http://www.orafaq.com/glossary/faqglos.htm>) and wherein said particular translated instructions are purged from said cache only when all said particular translated instructions of particular translated blocks are also purged from said cache (col: 3 line: 54-60, col: 4 line: 45-54; interpreted as emptying the translated instructions in by blocks of translated instructions).

As per claim 5, Walters discloses the method of claim 1 wherein said legacy instructions are object code instructions compiled/assembled for a legacy architecture **(col: 1 line: 56 to col: 2 line: 4)**.

As per claims 7, note the rejection of claims 1 above. The Instant claims are functionally equivalent to the above-rejected claims and are therefore rejected under same prior-art teachings. Additionally, limitations written in preamble are not given patentable weight.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walters (**US 5,768,593**) as applied to claim 1 above, and further in view of Scalzi (**US 5,540,013**).

As per claim 4, Walters discloses all limitations of claim 1. Walters, although enabled to use the invention for S/390 architecture, does not explicitly disclose using such architecture in the emulation of the legacy system **(col: 1 line: 40-44)**. Scalzi however discloses an analogous emulation system having the said feature **(col: 17 line: 54-67)**. It would have been obvious to one of ordinary skill in the art <hardware emulation / software emulation / PowerPC emulation / virtual machines / etc> at the time of Applicant's invention. The motivation is given by the primary reference in **(col: 1 line: 40-44, col: 1 line: 18-25**

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... IBM PC compatible computers), i.e. in order to use the programs developed for one system on another system without having to re-design and re-development the programs; thus, saving cost, time and effort. As per claim 6, Walters discloses all limitations of claim 1. Walters is enabled such that translated instructions are for execution in a RISC architecture. Walters however does not explicitly disclose such a feature. Scalzi however discloses an analogous emulation system having the said feature (**col: 2 line: 3-23**). It would have been obvious to one of ordinary skill in the art <hardware emulation / software emulation / PowerPC emulation / virtual machines / etc> at the time of Applicant's invention. The motivation is given by the primary reference in (**col: 1 line: 40-44, col: 1 line: 18-25** ... IBM PC compatible computers), i.e. in order to use the programs developed for one system on another system without having to re-design and re-development the programs; thus, saving cost, time and effort.

Conclusion

12. All claims are rejected.

13. Instant Application is not currently in condition for allowance.

14. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 1/18/06 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

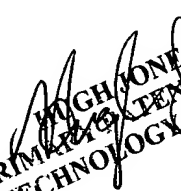
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Silver
Patent Examiner
Art Unit 2128

/ds/
4/5/2006


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